1. A method of monitoring a signal having a first plurality of channels separated in a first format, and a second plurality of channels separated in a second format different from the first format, comprising:

measuring a first parameter of a first one of the first channels;

measuring a second parameter of a second one of the first channels; and

computing relative power between the first one of the first channels and the second one of the first channels as a function of the first and second parameters.

2. The method of claim 1 wherein the second format comprises a code division multi-access format.

3. The method of claim 2 wherein the first format comprises a time division multi-access format.

4. The method of claim 3 wherein the measurement of the first parameter comprises computing an unnormalized cross-correlated value between an actual waveform of the first one of the first channels and an ideal waveform for at least one of the second channels that correlates with the actual waveform.

5. The method of claim 4 wherein the computation of the unnormalized cross-correlated value comprises solving the following equation:

$$\xi = \frac{\left|\sum_{k=1}^{M} z_k \cdot r_k^*\right|^2}{\sum_{k=1}^{M} \left|r_k\right|^2}$$

where:

ξ represents the unnormalized cross-correlated value between the actual waveform of the first one of the first channels and the ideal waveform that correlates to the actual waveform;

z_k represents actual waveform samples from the first one of the first channels;

r_k represents ideal waveform samples for at least one of the second channels that correlate with the actual waveform samples;

M represents a number of samples in the first one of the first channels used to compute ξ; and

[]* represents a complex conjugate.

6. The method of claim 4 wherein the computation of the unnormalized cross-correlated value comprises solving the following equation:

$$\xi = \sum_{J=1}^{N} \left\{ \frac{\left| \sum_{k=1}^{M} z_{j,k} \cdot r_{j,k}^{*} \right|^2}{\sum_{k=1}^{M} \left| r_{j,k} \right|^2} \right\}$$

where:

ξ represents the unnormalized cross-correlated value between the actual waveform of the first one of the first channels and the ideal waveform that correlates to the actual waveform;

j represents an index designating an elementary unit of the actual waveform;

k is an index designating a sample in the elementary unit;

$z_{j,k}$ represents actual waveform samples in the j^{th} elementary unit from the first one of the first channels;

$r_{j,k}$ represents ideal waveform samples in the j^{th} elementary unit for at least one of the second channels that correlate with the actual waveform samples;

M represents a number of samples in the first one of the first channels used to compute ξ;

N is a summation limit designating the number of elementary units; and

[]* represents a complex conjugate.

7. The method of claim 1 wherein the relative power computation comprises computing a ratio of the first and second parameters.

8. The method of claim 7 wherein the relative power computation comprises a logarithmic ratio.

9. The method of claim 7 wherein the measurement of the first parameter comprises computing an unnormalized cross-correlated value (ξ^{ch1}) between an actual waveform of the first one of the first channels and an ideal waveform for at least one of the second channels that correlates to the actual waveform of the first one of the first channels, and computing an unnormalized cross-correlated value ((ξ^{ch2}) between an actual waveform of the second one of the first channels and an ideal waveform for said at least one of the second channels that correlates to the actual waveform of the second one of the first channels.

10. The method of claim 9 wherein the relative power computation (Δ) further comprising solving the following equation:

$$\Delta = 10 \cdot \log_{10}\left(\frac{\xi^{ch1}}{\xi^{ch2}}\right)$$

11. A power measurement device, comprising a processor configured to receive first and second waveforms, measuring a first parameter as a function of the first and second waveforms over a first time period, measuring a second parameter as a function of the first and second waveforms over a second time period, and compute relative power of the first waveform between the first and second time periods.

12. The power measurement device of claim 11 wherein the first parameter comprises a first unnormalized cross-correlated value between the first waveform and the second waveform that correlates with the first time period, and the second parameter comprises a second

unnormalized cross-correlated value between the first waveform and the second waveform that correlates with the first waveform over the second time period.

13. The power measurement device of claim 12 further comprising a receiver configured to receive the first waveform from a communications medium and to couple samples of the first waveform to the processor.

14. The power measurement device of claim 13 wherein the receiver comprises a compensator configured to compensate the first waveform in accordance with the second waveform.

15. The power measurement device of claim 14 wherein the compensator is configured to compensate the first waveform for time, frequency and phase offsets with respect to the second waveform.

16. The power measurement device of claim 13 wherein the receiver comprises a downconverter configured to downconvert the first waveform to baseband, and a sampler configured to sample the baseband first waveform.

17. The power measurement device of claim 12 further comprising a signal generator configured to generate the second waveform.

18. The power measurement device of claim 17 wherein the signal generator is configured to couple samples of the second waveform to the processor.

19. The power measurement device of claim 18 wherein the signal generator comprises a signal source configured to generate the second waveform, and a sampler configured to sample the second waveform.

20. The power measurement device of claim 12 further comprising a receiver configured to receive the first waveform from a communications medium and to couple samples of the first waveform to the processor, and a signal generator configured to generate and couple samples of the second waveform to the processor.

21. The power measurement device of claim 20 wherein the receiver comprises a compensator configured to compensate the first waveform in accordance with the second waveform.

22. The power measurement device of claim 21 wherein the compensator is configured to compensate the first waveform for time, frequency and phase offsets with respect to the second waveform.

23. The power measurement device of claim11 wherein the processor is further configured to compute the relative power by computing a ratio of the first and second parameters.

24. The power measurement device of claim 23 wherein the relative power computation comprises a logarithmic ratio.

25. A power measurement device, comprising a processor configured to receive a signal having a first plurality of channels separated in a first format, and a second plurality of channels separated in a second format different from the first format, the processor further configured to measure a first parameter of a first one of the first channels, measure a second parameter of a second one of the first channels, and computing relative power between the first one of the first channels and the second one of the first channels as a function of the first and second parameters.

26. The power measurement device of claim 25 wherein the second format comprises a code division multi-access format.

27. The power measurement device of claim 26 wherein the first format comprises a time division multi-access format.

28. The power measurement device of claim 27 wherein the processor is further configured to measure the first parameter by computing an unnormalized cross-correlated value between an actual waveform of the first one of the first channels and an ideal waveform for at least one of the second channels that correlates with the actual waveform.

29. The power measurement device of claim 28 wherein the processor is further configured to compute the unnormalized cross-correlated value by solving the following equation:

$$\xi = \frac{\left|\sum_{k=1}^{M} z_k \cdot r_k^{*}\right|^2}{\sum_{k=1}^{M} \left|r_k\right|^2}$$

where:

ξ represents the unnormalized cross-correlated value between the actual waveform of the first one of the first channels and the ideal waveform that correlates to the actual waveform;

z_k represents actual waveform samples from the first one of the first channels;

r_k represents ideal waveform samples for at least one of the second channels that correlate with the actual waveform samples;

M represents a number of samples in the first one of the first channels used to compute ξ; and

[]* represents the complex conjugate.

30. The power measurement device of claim 28 wherein the processor is further configured to compute the unnormalized cross-correlated value by solving the following equation:

$$\xi = \sum_{J=1}^{N} \left\{ \frac{\left| \sum_{k=1}^{M} z_{j,k} \cdot r_{j,k}^{*} \right|^2}{\sum_{k=1}^{M} \left| r_{j,k} \right|^2} \right\}$$

where:

ξ represents the unnormalized cross-correlated value between the actual waveform of the first one of the first channels and the ideal waveform that correlates to the actual waveform;

j represents an index designating an elementary unit of the actual waveform;

k is an index designating a sample in the elementary unit;

$z_{j,k}$ represents actual waveform samples in the j^{th} elementary unit from the first one of the first channels;

$r_{j,k}$ represents ideal waveform samples in the j^{th} elementary unit for at least one of the second channels that correlate with the actual waveform samples;

M represents a number of samples in the first one of the first channels used to compute ξ;

N is a summation limit designating the number of elementary units; and

[]* represents a complex conjugate.

31. The power measurement device of claim 25 wherein the processor is further configured to compute the relative power by computing a ratio of the first and second parameters.

32. The power measurement device of claim 31 wherein the relative power computation comprises a logarithmic ratio.

33. The power measurement device of claim 31 wherein the processor is further configured to measure the first parameter by computing an unnormalized cross-correlated value (ξ^{ch1}) between an actual waveform of the first one of the first channels and an ideal waveform for at least one of the second channels that correlates to the actual waveform of the first one of the first channels, and computing an unnormalized cross-correlated value ((ξ^{ch2}) between an actual waveform of the second one of the first channels and an ideal waveform for said at least one of the second channels that correlates to the actual waveform of the second one of the first channels.

34. The power measurement device of claim 33 wherein the processor is further configured to compute the relative power (Δ) by solving the following equation:

$$\Delta = 10 \cdot \log_{10}\left(\frac{\xi^{ch1}}{\xi^{ch2}}\right).$$

35. A method of measuring power, comprising:

measuring a first parameter as a function of first and second waveforms over a first time period;

measuring a second parameter as a function of the first and second waveforms over a second time period; and

computing relative power of the first waveform between the first and second time periods.

36. The method of claim 35 wherein the first parameter measurement comprises computing a first unnormalized cross-correlated value between the first waveform and the second waveform that correlates with the first time period, and the second parameter measurement comprises computing a second unnormalized cross-correlated value between the first waveform and the second waveform that correlates with the first waveform over the second time period.

37. The method of claim 36 wherein the first and second parameter measurements each further comprises computing its respective first or second unnormalized cross-correlated value using samples of the first and second waveforms.

38. The method of claim 37 further comprising compensating the first waveform in accordance with the second waveform.

39. The method of claim 38 wherein the waveform compensation comprises compensating the first waveform for time, frequency and phase offsets with respect to the second waveform.

40. The method of claim 35 wherein the relative power computation comprises computing a ratio of the first and second parameters.

41. The method of claim 40 wherein the relative power computation comprises computing a logarithmic ratio.

42. Computer-readable media embodying a program of instructions executable by a computer to perform a method of monitoring a signal having a first plurality of channels separated in a first format, and a second plurality of channels separated in a second format different from the first format, the method comprising:

measuring a first parameter of a first one of the first channels;

measuring a second parameter of a second one of the first channels; and

computing relative power between the first one of the first channels and the second one of the first channels as a function of the first and second parameters.

43. The computer-readable media of claim 42 wherein the second format comprises a code division multi-access format.

44. The computer-readable media of claim 43 wherein the first format comprises a time division multi-access format.

45. The computer-readable media of claim 44 wherein the measurement of the first parameter comprises computing an unnormalized cross-correlated value between an actual waveform of the first one of the first channels and an ideal waveform for at least one of the second channels that correlates with the actual waveform.

46. The computer-readable media of claim 45 wherein the computation of the unnormalized cross-correlated value comprises solving the following equation:

$$\xi = \frac{\left| \sum_{k=1}^{M} z_k \cdot r_k^* \right|^2}{\sum_{k=1}^{M} \left| r_k \right|^2}$$

where:

ξ represents the unnormalized cross-correlated value between the actual waveform of the first one of the first channels and the ideal waveform that correlates to the actual waveform;

z_k represents actual waveform samples from the first one of the first channels;

r_k represents ideal waveform samples for at least one of the second channels that correlate with the actual waveform samples;

M represents a number of samples in the first one of the first channels used to compute ξ; and

[]* represents a complex conjugate.

47. The computer-readable media of claim 45 wherein the computation of the unnormalized cross-correlated value comprises solving the following equation:

$$\xi = \sum_{J=1}^{N} \left\{ \frac{\left| \sum_{k=1}^{M} z_{j,k} \cdot r_{j,k}^* \right|^2}{\sum_{k=1}^{M} \left| r_{j,k} \right|^2} \right\}$$

where:

ξ represents the unnormalized cross-correlated value between the actual waveform of the first one of the first channels and the ideal waveform that correlates to the actual waveform;

j represents an index designating an elementary unit of the actual waveform;

k is an index designating a sample in the elementary unit;

$z_{j,k}$ represents actual waveform samples in the j^{th} elementary unit from the first one of the first channels;

$r_{j,k}$ represents ideal waveform samples in the j^{th} elementary unit for at least one of the second channels that correlate with the actual waveform samples;

M represents a number of samples in the first one of the first channels used to compute ξ;

N is a summation limit designating the number of elementary units; and

[]* represents a complex conjugate.

48. The computer-readable media of claim 42 wherein the relative power computation comprises computing a ratio of the first and second parameters.

49. The computer-readable media of claim 48 wherein the relative power computation comprises a logarithmic ratio.

50. The computer-readable media of claim 48 wherein the measurement of the first parameter comprises computing an unnormalized cross-correlated value (ξ^{ch1}) between an actual waveform of the first one of the first channels and an ideal waveform for at least one of the second channels that correlates to the actual waveform of the first one of the first channels, and computing an unnormalized cross-correlated value ((ξ^{ch2}) between an actual waveform of the second one of the first channels and an ideal waveform for said at least one of the second channels that correlates to the actual waveform of the second one of the first channels.

51. The computer-readable media of claim 50 wherein the relative power computation (Δ) further comprising solving the following equation:

$$\Delta = 10 \cdot \log_{10}\left(\frac{\xi^{ch1}}{\xi^{ch2}}\right).$$

52. A power measurement device, comprising:

first measurement means for measuring a first parameter as a function of the first and second waveforms over a first time period;

second measurement means for measuring a second parameter as a function of the first and second waveforms over a second time period; and

computation means for compute relative power of the first waveform between the first and second time periods.

53. The power measurement device of claim 52 wherein the first parameter comprises a first unnormalized cross-correlated value between the first waveform and the second waveform that correlates with the first time period, and the second parameter comprises a second unnormalized cross-correlated value between the first waveform and the second waveform that correlates with the first waveform over the second time period.

54. The power measurement device of claim 53 further comprising receiving means for receiving the first waveform from a communications medium, and means for coupling samples of the first waveform to the first and second measurement means.

55. The power measurement device of claim 54 wherein the receiving means comprises compensating means for compensating the first waveform in accordance with the second waveform.

56. The power measurement device of claim 55 wherein compensating means is configured to compensate the first waveform for time, frequency and phase offsets with respect to the second waveform.

57. The power measurement device of claim 54 wherein the receiving means comprises means for downconverting the first waveform to baseband, and means for sampling the baseband first waveform.

58. The power measurement device of claim 53 further comprising signal generation means for generating the second waveform.

59. The power measurement device of claim 58 wherein the signal generation means is configured to couple samples of the second waveform to the first and second measurement means.

60. The power measurement device of claim 59 wherein the signal generation means comprises means for sampling the second waveform.

61. The power measurement device of claim 53 further comprising receiving means for receiving the first waveform from a communications medium and to coupling samples of the first waveform to the processor, and a signal generation means for generating and coupling samples of the second waveform to the processor.

62. The power measurement device of claim 61 wherein the receiving comprises compensation means for compensating the first waveform in accordance with the second waveform.

63. The power measurement device of claim 62 wherein the compensation means is configured to compensate the first waveform for time, frequency and phase offsets with respect to the second waveform.

64. The power measurement device of claim 52 wherein the computation means is configured to compute the relative power by computing a ratio of the first and second parameters.

65. The power measurement device of claim 64 wherein the relative power computation comprises a logarithmic ratio.

66. A power measurement device, comprising:

receiving means for receiving a signal having a first plurality of channels separated in a first format, and a second plurality of channels separated in a second format different from the first format;

first measurement means for measuring a first parameter of a first one of the first channels;

second measurement means for measuring a second parameter of a second one of the first channels; and

computation means for computing relative power between the first one of the first channels and the second one of the first channels as a function of the first and second parameters.

67. The power measurement device of claim 66 wherein the second format comprises a code division multi-access format.

68. The power measurement device of claim 67 wherein the first format comprises a time division multi-access format.

69. The power measurement device of claim 68 wherein the first measurement means is configured to measure the first parameter by computing an unnormalized cross-correlated value

between an actual waveform of the first one of the first channels and an ideal waveform for at least one of the second channels that correlates with the actual waveform.

70. The power measurement device of claim 69 wherein the first measurement means is further configured to compute the unnormalized cross-correlated value by solving the following equation:

$$\xi = \frac{\left|\sum_{k=1}^{M} z_k \cdot r_k^*\right|^2}{\sum_{k=1}^{M} \left|r_k\right|^2}$$

where:

ξ represents the unnormalized cross-correlated value between the actual waveform of the first one of the first channels and the ideal waveform that correlates to the actual waveform;

z_k represents actual waveform samples from the first one of the first channels;

r_k represents ideal waveform samples for at least one of the second channels that correlate with the actual waveform samples;

M represents a number of samples in the first one of the first channels used to compute ξ; and

[]* represents the complex conjugate.

71. The power measurement device of claim 69 wherein the first measurement means is further configured to compute the unnormalized cross-correlated value by solving the following equation:

$$\xi = \sum_{J=1}^{N} \left\{ \frac{\left| \sum_{k=1}^{M} z_{j,k} \cdot r_{j,k}^{*} \right|^{2}}{\sum_{k=1}^{M} \left| r_{j,k} \right|^{2}} \right.$$

where:

ξ represents the unnormalized cross-correlated value between the actual waveform of the first one of the first channels and the ideal waveform that correlates to the actual waveform;

j represents an index designating an elementary unit of the actual waveform;

k is an index designating a sample in the elementary unit;

$z_{j,k}$ represents actual waveform samples in the j^{th} elementary unit from the first one of the first channels;

$r_{j,k}$ represents ideal waveform samples in the j^{th} elementary unit for at least one of the second channels that correlate with the actual waveform samples;

M represents a number of samples in the first one of the first channels used to compute ξ;

N is a summation limit designating the number of elementary units; and

[]* represents a complex conjugate.

72. The power measurement device of claim 66 wherein the computation means is further configured to compute the relative power by computing a ratio of the first and second parameters.

73. The power measurement device of claim 72 wherein the relative power computation comprises a logarithmic ratio.

74. The power measurement device of claim 72 wherein the first measurement means is configured to measure the first parameter by computing an unnormalized cross-correlated value (ξ^{ch1}) between an actual waveform of the first one of the first channels and an ideal waveform for at least one of the second channels that correlates to the actual waveform of the first one of the first channels, and the second measurement means is configured to measure the second parameter

by computing an unnormalized cross-correlated value ((ξ^{ch2}) between an actual waveform of the second one of the first channels and an ideal waveform for said at least one of the second channels that correlates to the actual waveform of the second one of the first channels.

75. The power measurement device of claim 74 wherein the computation means is configured to compute the relative power (Δ) by solving the following equation:

$$\Delta = 10 \cdot \log_{10}\left(\frac{\xi^{ch1}}{\xi^{ch2}}\right).$$

76. Computer-readable media embodying a program of instructions executable by a computer to perform a method of measuring power, the method comprising:

measuring a first parameter as a function of first and second waveforms over a first time period;

measuring a second parameter as a function of the first and second waveforms over a second time period; and

computing relative power of the first waveform between the first and second time periods.

77. The computer-readable media of claim 76 wherein the first parameter measurement comprises computing a first unnormalized cross-correlated value between the first waveform and the second waveform that correlates with the first time period, and the second parameter measurement comprises computing a second unnormalized cross-correlated value between the first waveform and the second waveform that correlates with the first waveform over the second time period.

78. The computer-readable media of claim 77 wherein the first and second parameter measurements each further comprises computing its respective first or second unnormalized cross-correlated value using samples of the first and second waveforms.

79. The computer-readable media of claim 78 wherein the method further comprises compensating the first waveform in accordance with the second waveform.

80. The computer-readable media of claim 79 wherein the waveform compensation comprises compensating the first waveform for time, frequency and phase offsets with respect to the second waveform.

81. The computer-readable media of claim76 wherein the relative power computation comprises computing a ratio of the first and second parameters.

82. The computer-readable media of claim 81 wherein the relative power computation comprises computing a logarithmic ratio.